4. Donghai

Program Name: Donghai.java **Input File: donghai.dat**

Donghai helped Joan solve the Invitational A problem counting words and calculating the average size of words. Now, he wants to work with letters instead of words. He wants to count the number of times each letter occurs in written prose. He will ignore punctuation marks and any other non-alphabetic characters. Uppercase and lowercase letters are considered the same letter. Once they have been counted, he will display the list of letters that occurred.

Can you help Donghai solve this problem?

Input: First line will contain an integer N with $0 < N \leq 10$ which is the number of paragraphs that follow. Each paragraph will occur on a single line of text and will not exceed 2000 characters in total length. Any ASCII character can occur in a paragraph but the only ones of interest are the standard alphabetic letters, both uppercase A…Z and lowercase a…z.

Output: Each test case must display list of letters in uppercase that have non-zero counts. Each output line with a letter will start with that letter followed by a colon "**:**" followed by the count with no spaces. Following each test case display a line containing 10 equal signs "==========".

Sample input: (*indented lines are continuation of previous line*)

```
3
Let's start with a short 1-line paragraph just to see a result!
Now, this second paragraph will be much longer which results in the sample input
   displaying with all continuation lines indented.  However, it will be a single
   unbroken line in the data file that is provided for the contest...
This is the third "paragraph" of sample data for this programming problem
```

Sample output:

```
A:6
E:5
G:1
H:3
I:2
J:1
L:3
N:1
O:2
P:2
R:5
S:6
T:8
U:2
W:1
==========
```

Sample output: *continued*

```
A:11
B:3
C:5
D:7
E:20
F:2
G:4
H:11
I:20
K:1
L:14
M:2
N:18
O:10
P:6
R:8
S:10
T:16
U:5
V:2
W:6
Y:1
==========
```

Sample output: *continued*

```
A:7
B:1
D:2
E:3
F:2
G:3
H:5
I:5
L:2
M:4
N:1
O:4
P:5
R:7
S:4
T:5
==========
```